



STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

**Division of Facilities Construction and Management**

**DFCM**

## **Solicitation for Consultant Services**

Value Based Selection Method

April 24, 2006

# **COMMISSIONING SERVICES FOR UTAH MUSEUM OF NATURAL HISTORY**

**UNIVERSITY OF UTAH  
SALT LAKE CITY, UTAH**

**DFCM Project No. 02243750**

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Current copies of the following documents are hereby made part of this Solicitation for Consultants (SFC) by reference. These documents are available on the DFCM web site at <http://dfcm.utah.gov> or are available upon request from DFCM.

DFCM Design Manual dated May 25, 2005  
DFCM General Conditions dated May 25, 2005  
Utah Museum of Natural History Building Program  
University of Utah Design Standards  
Soils and topographic information on web site

**The Agreement and General Conditions dated May 25, 2005 have been updated from versions that were formally adopted and in use prior to this date. The changes made to the General Conditions are identified in a document entitled Revisions to General Conditions that is available on DFCM's web site at <http://dfcm.utah.gov>**

## **NOTICE TO COMMISSIONING CONSULTANTS**

The State of Utah - Division of Facilities Construction and Management (DFCM) is soliciting the services of qualified firms/individuals to perform commissioning services for the following project:

**UTAH MUSEUM OF NATURAL HISTORY**  
**UNIVERSITY OF UTAH – SALT LAKE CITY, UTAH**  
**DFCM PROJECT NO. 02243750**

The project is a new facility for the Utah Museum of Natural History located on a sensitive site at the eastern edge of the campus of the University of Utah. The structure will accommodate new exhibitions and innovative approaches to collections storage, educational space, research space, and work areas are to be included in the facility. Parking for up to 200 cars is to be included. The facility (not including parking) is 169,000 gsf. Since the site is ecologically and politically sensitive, the Consultant must demonstrate the ability to work within and solve these issues. The construction budget for this project is \$35,000,000 to \$40,000,000.

This will be a LEED-certified project. In addition, The State Energy Program will be used as a comparison. The services of this solicitation include, but are not limited to, commissioning of the control, mechanical, electrical, fire alarm, elevators or other systems of the project.

The selection of the commissioning consultant shall be under the Value Based Selection method. The Solicitation for Consultants (SFC) documents, including the submittal requirements and the selection criteria and schedule, will be available beginning on Monday, April 24, 2006, from DFCM at the State Office Building - Room 4110, Salt Lake City, Utah 84114 and on the DFCM web site at <http://dfcm.utah.gov>. For questions regarding this solicitation, please contact Lyle Knudsen, DFCM, at (801) 538-3275.

A **MANDATORY** pre-submittal meeting will be held at 1:00 PM on Monday, May 8, 2006 at the State Office Building - Room 4110, Salt Lake City, Utah 84114. It is required that all consultants wishing to submit on this project attend this meeting.

Submittal dates for the required management plans, statements of qualifications, and interviews will be based on the Project Schedule included in the SFC.

The Division of Facilities Construction & Management reserves the right to reject any or all submittals or to waive any formality or technicality in any submittal in the interest of the State.

**DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT**  
**MARLA WORKMAN, CONTRACT COORDINATOR**  
4110 State Office Bldg., Salt Lake City, Utah 84114

## **PREAMBLE FOR COMMISSIONING**

The commissioning process is accomplished through a team effort of cooperation, coordination and communication. The team is comprised of the general contractor and subcontractors, design architect and engineers, inspection and testing firms, Commissioning Agent (CA), the end users and operators and DFCM.

The intention is to assemble the team as early in the design process as possible. The commissioning process starts with the selected Commission Agent providing a draft commission plan for all team members to comment on and coordinate with. Once the plan is accepted the design team and the Commissioning Agent work together to provide instructions to the construction team on what will be required by the contractor and sub contractors to commission the building. This will be done via the specifications if completed before completion of design or via proposal request if completed after the construction contract is underway.

The commissioning plan is a compilation of processes, milestones and inspections. As a minimum the commission should address the mechanical and electrical systems including the building controls and fire alarms. Other items can be added to the process as required. These may include audio video systems, telephone and data systems, elevators or any other system or parts.

The Commissioning Agent is not to replace the design architect and engineers in verifying that the work is constructed per the plans and specifications. They are to supplement the efforts of the design team. Close communication and coordination between the design team, the Commissioning Agent and DFCM is required. It is the intent for the design team to continue to do both interim and final inspections noting items that do not comply with code or with the design requirements. As the requirement of the commissioning plan are finalized contract clarifications and modifications may be required to increase or decrease the activities required by either the Commissioning Agent or the design team or both.

The testing and inspection firms hired by DFCM also have a part in the commissioning activity. As an item is inspected the results need to be communicated. An example is a piping pressure test. If this is an activity on the commissioning plan a decision is required as to who will witness the test and how the information will be reported to all parties including the Commissioning Agent.

The State Fire Marshall issues are a part of the commissioning process. Certain items will be identified that need to be incorporated in to the commissioning plan that fall under the authority of the State Fire Marshall.

The contractor is ultimately responsible for the end product to function as designed. As such the contractor is required to communicate and coordinate the work so that the end result is both functional and maintainable. The contractor may wish to hire an outside firm to help in the process or someone within the firm should be assigned this duty. It is intended that the contractor regularly schedule a meeting so that all team members can communicate and coordinate issues, requirements and expectations and that this forum be used to solve issues on the job. Via the contractors

coordination efforts, items that require access to maintain should be placed in appropriate locations. As items on the commissioning plan are completed the contractor must provide documentation of completion and acceptance to the Commissioning Agent.

Requirements for training shall be documented in the project specifications. Coordination of the training shall be the responsibility of the contractor and the Commissioning Agent.

The Commissioning Agent will be expected to apply their best knowledge and expertise to represent the State of Utah in confirmation and documentation fulfilling the functional and performance requirements of the State of Utah and DFCM. To reach this goal, it is necessary for the commissioning process to establish and document the criteria for System functions, performance, and maintainability; as well as to verify and document compliance with these criteria throughout design, construction, start-up, and the initial period of operation.

**Systems that could be commissioned include:**

- a. Electrical Systems
- b. Mechanical and Plumbing Systems
- c. Operable Building Control Systems
- d. Building Security Systems
- e. Elevators & Conveyance Systems
- f. Scheduled or Occupancy Sensor Lighting Controls
- g. Daylight Dimming Controls
- h. Refrigeration Systems
- i. Emergency Power Generators and Automatic Transfer Switching
- j. Uninterruptible Power Supply Systems
- k. Life Safety Systems (fire alarm, egress pressurization, fire protection,)
- l. Domestic and Process Water Pumping and Mixing Systems
- m. Equipment Sound Control Systems and Testing
- n. Paging Systems
- Other Systems as identified

The CA should be involved throughout the project from design through the one year general warranty phase of the project. The primary role of the CA during the design phase is to develop detailed commissioning specifications and review design to ensure that Systems meet DFCM's objectives.

## PROJECT DESCRIPTION

The services of this solicitation include, but are not limited to, commissioning of the control, mechanical, electrical, fire alarm, security, elevators etc., and other systems of the project. Other systems may be identified during the design portion of the project.

The initial contract will be for services provided during the design phase. Once a final scope of services is identified for the construction phase for commissioning a change order will be negotiated for these services. If an acceptable fee cannot be negotiated another RFP for commissioning services will be issued for the construction period.

The project is under design by Polshek and GSBS (architect firm) with Colvin Engineering (mechanical firm), Spectrum Engineering (electrical firm). The status of the design is 50% Schematic Design with completion dates of Spring 2007. As part of the design phase of the project, DFCM has hired a Construction Manager/General Contractor (CM/GC) to assist the design team in meeting the owner's budget, schedule, and constructability requirements. The CM/GC for the project is Big-D Construction.

The project is a new facility for the Utah Museum of Natural History located on a sensitive site at the eastern edge of the campus of the University of Utah. The structure will accommodate new exhibitions and innovative approaches to collections storage, educational space, research space, and work areas are to be included in the facility. Parking for up to 200 cars is included. Various schemes will be considered and analyzed. The facility (not including parking) is 169,000 gsf. Occupation of the facility is expected in late 2009/early 2010.

The site has constraints, sensitivities and tremendous potential; the consultant must demonstrate the ability to work within and solve these issues. They must demonstrate experience in projects of a similar size and complexity. They must demonstrate collaborative work in a cooperative and coordinated manner with the design team and exhibits designer. Show experience with such site amenities as plazas, terraces, pedestrian ways, planted roofs, etc. The collaboration will be throughout design and construction of the project. They must demonstrate experience in constructing sustainable buildings and experience with LEED certification and demonstrate experience working with a variety of constituencies.

The project will be a CM/GC process. Sub-consultants (i.e. engineering firms and landscape architects) have been selected in a separate process of collaboration jointly by the owner, user, and architectural firm(s). The exhibit design consultant was selected by the owner and user; contracted directly with DFCM. An independent cost estimator has been hired by the owner to provide a second verification of costs, not to replace the architects' or the CM/GC's cost estimates; the CM/GC cost estimator must have access to the work of the design team on an ongoing basis and any concerns raised by the estimator must be reconciled. An Architect, project manager, was hired in early 2005 to serve as advisor to the Museum and point-of-contact for the design architectural, landscape, and exhibits design teams.

## **BACKGROUND**

### **A. The Museum and the Community**

The Museum is the designated State Museum of Natural History at the University of Utah, and is a collections-holding research and educational institution. The University, at the eastern edge of Salt Lake City, has faculty and staff numbering 17,000, a student body of 29,000, and is the flagship university of the state of Utah. Salt Lake City is the capital of Utah and serves as the business, economic, education, and cultural center for the state. Its current population is 185,000 residents, but its daytime population exceeds 350,000. Salt Lake City is a central hub of a metropolitan area of approximately 1.9 million people, and is host to 8.7 million tourists annually. The City recently hosted the 2002 Olympic Winter Games, and the University of Utah provided housing for the athletes as well as hosted the Opening and Closing Ceremonies. The Museum has research laboratories and trains undergraduate and graduate students at the University, provides extensive on-site programs to K-12 schools, and offers exhibits and public programs to adults, families, tourists, assistance to other natural history collections statewide and other users. It also travels exhibits, community programs, and in-classroom programs and provides technical expertise to museums statewide. The collections number more than 1,200,000 objects spanning the geologic history of the region, and date from the late 19th century, when the University began its long tradition of fieldwork in the Intermountain West. The collections were transferred from the academic departments to the Museum after the latter's establishment in 1969.

### **B. Project History**

Based on Phase One of a Master Plan completed in 1995, the University determined that the Museum's current home, a Depression-era library (plus two additional storage facilities), is inadequate and that a new facility at a site at the edge of campus was necessary for the Museum. The University's Board of Trustees reserved 17 acres in its Research Park, and since has obtained approval from the State Board of Regents for Higher Education, the Utah State Building Board, and the State Legislature, to proceed with the planning, design and construction. A conceptual plan for the Museum was completed in 1999, the architectural pre-program followed in 2001, and architectural programming and interpretive masterplanning in 2004. With a critical mass of the funding identified and procured, the University is now proceeding with Architectural Design. An EIS is currently underway. The schematic design is 50% underway. The Architect, consultants, Landscape Planners, and Exhibit Designers, and CM/GC have been selected.

### **C. Site**

The 17-acre site is bounded to the north by *Red Butte Garden and Arboretum*, to the west and south by the University's Research Park, and to the east by University property under a permanent conservation easement and by the Wasatch-Cache National Forest. Other near neighbors include *This Is the Place Heritage Park*, *Utah's Hogle Zoo*, *Fort Douglas Military Museum*, and the University's student residences. The shoreline of the Pleistocene-aged Lake Bonneville runs through the site, as does a heavily used public trail that runs along the eastern edge of Salt Lake City. Backing up to the Wasatch Mountains, the site has spectacular west-facing views of downtown Salt Lake City, the

entire Salt Lake Valley, the Great Salt Lake, and the Oquirrh, Stansbury, and Lakeside mountain ranges in the Great Basin.

The city's new light-rail system, TRAX, comes to within a mile of the site. The University provides shuttle service to adjacent sites in Research Park, as does the public bus system (UTA). Running through the site is an 18" City water main, two high-pressure oil lines, and one natural gas line. These are within a 36' easement directly under the existing Bonneville Shoreline Trail. Building design and siting is desired which respects the existing natural vegetation of the site, preexisting circulation pathways, vistas, and takes advantage of the geology, flora and fauna and the interpretive opportunities that the site provides. The majority of the site is intended to be used for external exhibits, interpretive trails, a small amphitheatre and vistas across and beyond the Salt Lake Valley. Planning calls for the building to be integral with the site. Opportunities to move from inside the building to outside in a relatively seamless fashion, and the incorporation of the western prospects should be factors in design.

#### **D. Facility Summary and Budgets**

The new Museum is anticipated to be 169,000 gross square feet (131,560 net square feet) in size, and has a budget of \$35 million for hard construction costs (exclusive of design, furniture, fixtures and equipment costs, exhibits, and moving expenses). Exhibit planning, design, and fabrication is budgeted at \$17 million for 44,000 net square feet, including an estimated 7500 square feet allocated for changing exhibitions. The facility will be based on principles of sustainable design, should incorporate green materials in its construction, and should provide opportunities to interpret these principles.

#### **E. Project Goals**

The mission of the Utah Museum of Natural History is to illuminate the natural world and the place of humans within it. As Utah's state museum of natural history, we foster science as a journey of discovery, showcase Utah's extraordinary environments, and promote preservation of biological and cultural diversity. The staff and board of the Museum have articulated a philosophy for the interpretive work we do. Our research, public education, and exhibitions will be grounded in and coherent through these guiding concepts:

1. Connections - interrelatedness of the natural world; integration of scientific disciplines with one another and with other areas of human creativity.
2. Change - evolutionary and developmental processes that shape the universe; intellectual growth through personal discovery and creativity; fostering new perspectives and presenting changing paradigms; dynamism through regularly rotating exhibits; flexibility in the use of multipurpose space.
3. Diversity - preservation and celebration of diversity at all levels in nature and culture; respect for the great variety of human ideas within and among cultures; diversity as an essential component of human existence; establishment of the Museum as a center for discovery, discourse, and growth; recognition of the current biodiversity crisis and pathways towards solutions.



The Museum's collections are the focus for these concepts. They originate primarily from the Intermountain West and comprise the three disciplines traditionally ascribed to "natural history:" anthropology (archaeology and ethnography), biology (botany and zoology), and geology (mineralogy and paleontology). The anthropological collections (almost 1,000,000 objects) encompass the history of human occupation of western North America and are of global importance.

Collections (approximately 250,000 specimens) date from the nineteenth century and are key to our understanding of the changes in distributions of species in the last century. The geological collections (approximately 60,000 fossils and minerals) are rich in Jurassic and Cretaceous faunas, especially dinosaurs, and the minerals are worldwide in scope. The goals for the new Museum are to: (1) forge a new identity by building on the Museum's existing reputation and resources, leveraging those assets through new and innovative partnerships on campus, in the city, across the state, and through the region; (2) take on a regional identity and become an economic and cultural asset not just for Salt Lake City, but for the region and the nation; (3) provide first-rate research facilities for Museum scientists and a venue for undergraduate and graduate training for the University of Utah, retaining vital connections to the campus community; (4) expand the visitor base to include young adults and adults; (5) attract tourists and become a "trailhead"—a visitors center for the state and the region, the place to start your tour of Utah; (6) become a community gathering place with opportunities for dialog and discussion; (7) build a beautiful, sustainable building, with minimal impact to the site; and (8) become a new model for natural history museums through the integrated use of collections and other resources, organized in a multidisciplinary thematic structure.

## 1. **COMMISSIONING OVERVIEW**

- A. The objective of this contract is to document that this new facility fulfills the functional and performance requirements of DFCM and end user. To reach this goal, it is necessary for the commissioning process to establish and document compliance with these criteria. This process starts at the design phase and continues through the initial period of operation. In addition, the commissioning consultant will review submittals, the completed operation and maintenance (O&M) manuals, as well as coordinate System's training that shall be provided to the building operators to ensure the building continues to operate as intended.

The commissioning consultant will develop and coordinate the execution of a commissioning plan which includes observing and documenting all System's performance to ensure that Systems are functioning in accordance with DFCM's objectives and contract documents.

## 2. **DEFINITIONS**

- A. *Commissioning*: Commissioning is a quality-focused process for achieving, validating and documenting that the facility and its Systems are planned, designed, installed, tested and capable of being operated and maintained to perform in conformity with the design intent. The process extends through all phases of a project, from conceptualization to occupancy and operation, with checks and documentation at each.

stage of the process to ensure validation of their performance to meet the User Agency and DFCM design requirements.

- B. *Commissioning Agent*: An entity that plans, schedules, and coordinates the commissioning team to implement the Commissioning Process.
- C. *Commissioning Process*: A quality-focused process for enhancing the delivery of the project. This includes verifying and documenting the project and its Systems and assemblies are planned, designed, installed, tested, and operated to meet DFCM's requirements.
- D. *Commissioning Plan*: A document that outlines the organization, checklist, schedule, allocation of resources and documentation requirements of the Commissioning Process.
- E. *Test Procedure*: A written protocol that details the expectations, schedule and deliverables of the Commissioning Process activities related to training of project operating and maintenance personnel, users and occupants.
- F. *Verification*: The process by which specific documents, components, equipment, assemblies, Systems and interfaces among Systems are confirmed to comply with the project requirements.

### 3. **COMMISSIONING TEAM MEMBERS**

- A. Members Appointed by the DFCM:
  - (1) Commissioning Agent: The designated person, company, or entity that plans, schedules, and coordinates the commissioning team to implement the commissioning process. DFCM will engage the Commissioning Agent under a separate contract.
  - (2) Representatives and operation and maintenance personnel of the User Agency.
  - (3) Architect and engineering design professionals.
- B. Members Appointed by Contractor(s): Individuals, each having authority to act on behalf of the entity he or she represents, explicitly organized to implement the commissioning process through coordinated actions. The commissioning team shall consist of, but not be limited to, representatives of Contractor, including Project superintendent and subcontractors, installers, suppliers, and specialists deemed appropriate by the Commissioning Agent.
- C. For Commissioning Team minimum responsibilities refer to the Commissioning Responsibility Matrix located on the following page.

4. **COMMISSIONING RESPONSIBILITY MATRIX**

Task	Arch/ Eng	Contractor	Agency	Commissioning Agent
Commissioning Specifications	S	C	C	P
Coordination of Commissioning Requirements in Construction Documents	P	S	C	S
Commissioning Meetings During Construction	S	P	C	P
Commissioning Coordination with Sub-Contractors During Construction	S	P	C	S
Contractors Building Punch List	S	P	C	S
Contractors Building Punch List Verification	S	P	C	S
Commissioning Punch List	S	P	C	S
Commissioning Punch List Verification	S	S	C	P
Record Documents in Writable Format	P	S	C	S
Commissioning Plan/Deliverables Interactive DVD	S	S	C	P
Commissioning DVD Training	C	S	C	P
Building Systems Training	C	P	C	C

**LEGEND:**

- P **Primary Role** – The person or entity that is to be responsible for orchestrating and organizing an activity or task. Documentation responsibilities are assigned to this person or entity.
- S **Secondary Role** – The person or entity that is to act as support and assistance for the assigned activity or task. This person or entity is to act as Primary Role in absence of the assigned party.
- C **Coordination and Assistance Only** – The person or entity that has a vested interest in the outcome and findings of the team, however, is not to participate in directing the operations.

5. **COMMISSIONING AGENT'S MINIMUM RESPONSIBILITIES**

- A. **Design Phase:** The CA is responsible during the design phase for preparing the commissioning plan and inserting into the contract documents the requirement that the contractor will follow to insure a properly functioning building. The CA shall:
- (1) Organize and lead the commissioning team.
  - (2) Assist DFCM and the designers to establish both the design intent and the basis of design for the project.
  - (3) Prepare a project commissioning plan. The commissioning plan is continually updated as a project progresses through the various phases from design to DFCM acceptance and occupancy.
  - (4) Prepare Project-specific test and inspection procedures and checklists. Develop full commissioning specifications for all commissioned equipment and Systems to allow the commissioning plan to be completed.
  - (5) Prepare specifications for training modules to be provided and recorded by the contractor on DVD.
  - (6) Perform focused reviews of the design, drawings and specifications at various stages of development. Review the design for Compliance with design intent and that the design allows for the validation of the commissioning requirements.
  - (7) Coordinate a controls integration meeting.
  - (8) Provide a Commissioning Plan. The plan must contain the following elements at the design phase:
    - (a) Identification of all of the Systems to be commissioned.
    - (b) Definition of the commissioning process scope. Scope to include pre-installation and installation checklists, functional testing requirements, final documentation checklists and DFCM training verification.
    - (c) Definition of the commissioning roles and lines of communications for each member of the project team.
    - (d) A comprehensive commissioning schedule which includes both sequencing and time requirements for each task.

**B. Bid Phase**

- (1) Provide answers to commissioning related questions.

- C. Construction Phase:** The CA is responsible for the functional testing program which objectively verifies that the Building Systems perform interactively in accordance with the Project Documents. Written, repeatable test procedures, prepared specifically for each project, are to be used to functionally test components and Systems in all modes of operating conditions specified for testing. These tests are documented to clearly describe the individual systematic test procedures, the expected Systems response or acceptance criteria for each procedure, the actual response or findings, and any pertinent discussion. All response, findings and pertinent discussions regarding each test are to be included in the final commissioning report.

On new building commissioning projects, the CA reviews systems installation for commissioning related issues throughout the construction period.

All commissioning activities and findings are to be documented as they occur.

- (1) The CA is responsible for:
  - (a) Coordinate and direct the commissioning activities with all parties. Plan and conduct commissioning meetings as needed and distribute minutes.
  - (b) Perform site visits, as necessary, to observe component and system installations. Attend selected planning and job-site meetings.
  - (c) At the beginning of the construction phase, conduct an initial construction-phase coordination meeting for the purpose of reviewing the commissioning activities and establishing tentative schedules for operation and maintenance submittals; operation and maintenance training sessions; Testing, Adjusting and Balancing Work; and Project completion.
  - (d) Include design changes and scheduled commissioning activities coordinated with overall Project schedule. Identify commissioning team member responsibilities, by name, firm, and trade specialty, for performance of each commissioning task.

- (e) Review and comment on addendums and submittals from Contractor for compliance with DFCM's Project Requirements, Basis of Design, Contract Documents, and construction-phase commissioning plan. Review requests for information and change orders for impact on commissioning and DFCM's objectives.  
  
Review construction meeting minutes for revisions/ substitutions relating to the commissioning process. Assist in resolving any discrepancies. Request and review additional information required to perform commissioning tasks, including O&M materials, contractor start-up and checkout procedures. Review normal Contractor submittals applicable to Systems being commissioned. Review requests for information and change orders. Review coordination drawings.
- (f) Review and comment on performance expectations of Systems and equipment and interfaces between Systems relating to DFCM's Project Requirements and Basis of Design. Recommend specific measures, which when implemented, cause the building's energy Systems and controls to function as intended. Provide troubleshooting and performance verification
- (g) Review installation procedures with subcontractors to ensure complete compatibility with Commissioning Requirements and Design Intent. Work with contractors and equipment suppliers in the development of construction checklists for commissioned equipment.
- (h) Coordinate, witness and document manual functional performance tests performed by installing contractors. Coordinate retesting as necessary until satisfactory performance is achieved. Analyze functional performance trend logs and monitoring data to verify performance.
  - Tests on respective HVAC equipment shall be executed during both the heating and cooling season. Functional testing shall be done using conventional manual methods, control system trend logs, and read-outs or stand-alone dataloggers.
- (i) Witness any ductwork testing and cleaning sufficient to determine that proper procedures were followed. Include documentation in the Commissioning Record.
- (j) Confirm air and water systems balancing by spot testing and by reviewing completed reports and by selected site observation.

- (k) With necessary assistance and review from installing contractors, write the functional performance test procedures for equipment and Systems. This will include manual functional testing, energy management control system trending and may include stand-alone data-logger monitoring. Submit to PM for review and confirmation if required.
- (l) Coordinate, witness and document manual functional performance tests performed by installing contractors. Coordinate retesting as necessary until satisfactory performance is achieved. The functional testing shall include operating the System and components through each of the written sequences of operation, and other significant modes and sequences, including startup, shutdown, unoccupied mode, manual mode, staging, miscellaneous alarms, power failure, security alarm when impacted and interlocks with other systems or equipment.
- (m) Sensors and actuators shall be calibrated during construction check listing by the installing contractors, and spot-checked by the commissioning consultant during functional testing.
- (n) Tests on respective HVAC equipment shall be executed, if possible, during both the heating and cooling season. However, some overwriting of control values to simulate conditions shall be allowed. Functional testing shall be done using conventional manual methods, control system trend logs, and read-outs or stand-alone data loggers, to provide a high level of confidence in proper system function, as deemed appropriate by the commissioning consultant and DFCM.
- (o) Observe construction and report progress and deficiencies. In addition to compliance with the Contract Documents, inspect Systems and equipment installation for adequate accessibility for maintenance and component replacement or repair.
- (p) Compile test data, inspection reports, and certificates and include them in a Systems manual for use during final code inspections.
- (q) Review Project Record Documents for accuracy. Request revisions from Contractor to achieve accuracy.

D. **Start Up:** Before startup, gather and review the current control sequences and interlocks, and work with contractors and design engineers until sufficient clarity has been obtained, in writing, to be able to write detailed testing procedures.

- (1) Develop an enhanced start-up and initial Systems checkout plan with contractors for selected equipment.

- (2) Before startup, gather and review the current control sequences and interlocks and work with contractors and design engineers until sufficient clarity has been obtained, in writing, to be able to write detailed testing procedures.
- (3) Document Systems startup by reviewing start-up reports and by selected site observation.
- (4) Prepare test plans for, assist with execution of, and document tests of commissioned equipment overseen by regulatory authorities.

**E. Warranty Period**

- (1) Prior to expiration of the construction contract warranty, assist DFCM in assessing Systems' performance and addressing operational or warranty related issues. Review equipment warranties to ensure that DFCM's responsibilities are clearly defined.
- (2) Coordinate and supervise required opposite season or deferred testing and deficiency corrections and provide the final testing documentation for the Commissioning Record and O&M manuals.
- (3) Make suggestions for improvements and for recording these changes in the O&M manuals. Identify areas that may come under warranty or under the original construction contract.
- (4) Assist facility staff in developing reports and documents and requests for services to remedy outstanding problems.

**F. O&M Manuals**

Review and comment on operation and maintenance documentation and Systems manual outline for compliance with the Contract Documents. Compile a Systems Manual that consists of the following: control drawings; sequences of control; and a table of all set points and implications when changing them, schedules, instructions for operation of each piece of equipment for emergencies, seasonal adjustment, startup and shutdown, instructions for energy savings operations and descriptions of the energy savings strategies in the facility.



**6. OPERATION AND MAINTENANCE TRAINING REQUIREMENTS**

- A. Training Preparation Conference: Before operation and maintenance training, Commissioning Agent shall convene a training preparation conference to include DFCM's operation and maintenance personnel, Contractor, and subcontractors to perform the following:
- (1) Review the Basis of Design and Contract Documents
  - (2) Review installed Systems, subsystems, and equipment
  - (3) Review instructor qualifications
  - (4) Review instructional methods and procedures
  - (5) Review training module outlines and contents
  - (6) Review course materials (including operation and maintenance manuals)
  - (7) Inspect and discuss locations and other facilities required for instruction
  - (8) Review and finalize training schedule and verify availability of educational materials, instructors, audiovisual equipment, and facilities needed to avoid delays.
  - (9) For instruction that must occur outside, review weather and forecasted weather conditions and procedures to follow if conditions are unfavorable.

**7. MINIMUM COMMISSIONING DELIVERABLES AS FOLLOWS:**

- A. Commissioning Plan that includes a compilation of procedures, milestones, testing and inspections for the identified Systems and components. Also included in the Commissioning Record shall be the issues log, commissioning plan, progress reports, submittal and O&M manual reviews, training record, test schedules, construction checklists, start-up reports, functional tests, and trend log analysis.
- B. Interactive Commissioning DVD including the following:
- (1) Basis of Design/Design Intent narratives
    - (a) Project parameters; Trade parameters; System parameters; Product/Equipment parameters
  - (2) Interactive Key Drawings based on the record drawings for all trades
    - (a) Graphically show emergency shutdown procedures & equipment locations
    - (b) Architectural plans with “links” to door, hardware, window and finish schedules
    - (c) Landscape plans with “interactive links” to planting schedules

- (d) Civil plans
  - (e) Mechanical plans with “interactive links” to System diagrams and individual equipment or System design parameters
  - (f) Electrical Plans with “interactive links” to one-line diagrams and panel schedules (by panel zone) for power and lighting
- (3) Operations & Maintenance Manual Information
- (a) Product submittal information
  - (b) Manufacturer & Contractor contact information
  - (c) Warranty information
  - (d) Attic stock deliverables information
  - (e) Maintenance schedules
  - (f) Proper operation procedures
  - (g) Emergency procedures
  - (h) Trouble shooting, repair & adjustment procedures
- (4) DVD recorded Equipment Start-up and Training Sessions. User interface training on how to use the Interactive DVD.

# PROCUREMENT PROCESS

The State of Utah intends to enter into an agreement with a firm to provide professional services as described.

The selection of the firm will be made using a Value Based Selection (VBS) system. The Project Schedule lists the important events, dates, times and locations of meetings and submittals. The terms of the project schedule are hereby incorporated by reference and must be met by the selected firm.

## 1. COMMISSIONING AGENT QUALIFICATIONS

- A. The following are the desired qualifications and attributes of a project's Commissioning Agent:
- (1) Engineering knowledge and extensive hands-on field experience regarding:
    - (a) Building system commissioning process.
    - (b) The building design and construction process.
  - (2) Acted as the principal commissioning consultant for at least three (3) projects of similar scope and size.
  - (3) Extensive experience in the operation and troubleshooting of HVAC systems, and energy management control systems.
  - (4) Knowledgeable in building operation and maintenance and O&M training.
  - (5) Knowledgeable in test and balance of both air and water systems.
  - (6) Experienced in energy-efficient equipment design and control strategy optimization.
  - (7) Direct experience in monitoring and analyzing system operation using energy management control system trending and stand-alone data logging equipment.
  - (8) Excellent verbal and writing communication skills.
  - (9) Highly organized and able to work with both management and trade contractors.
  - (10) Experienced in writing commissioning specifications.

- (11) A bachelor's degree in mechanical or electrical engineering is preferred, and P.E. certification is desired, however, other technical training, past commissioning, and field experience will be considered.
  - (12) Membership with the Building Commissioning Association will be considered a plus.
  - (13) Experience with LEED certified projects.
- B. The team qualifications for commissioning this project will be based on skill and experience set of the full team making the proposal. A member of the prime firm will be the designated Commissioning Agent who is the member of the team that will coordinate the commissioning activities. The commissioning consultant must have significant in-building commissioning experience, including technical and management expertise on projects of similar scope and size. If the commissioning consultant or prime firm does not have sufficient skills to commission a specific system, the prime firm shall subcontract with a qualified party to do so. Subconsultant qualifications shall be included and clearly designated in the response to this RFP.

## **2. Solicitation for Consultant Documents**

The Solicitation for Consultant (SFC) documents consist of all of the documents listed in the Table of Contents and all said documents are incorporated in this SFC by reference. The SFC will be available at DFCM per the attached schedule and on the DFCM web site at <http://dfcm.utah.gov>.

## **3. Contact Information**

Except as authorized by the DFCM Representative or as otherwise stated in the SFC or the pre-submittal meeting, communication during the selection process shall be directed to the specified DFCM Representative. In order to maintain the fair and equitable treatment of everyone, Consultants shall not unduly contact or offer gifts or gratuities to DFCM, any Board officer, employee or agent of the State of Utah, users or selection committee members in an effort to influence the selection process or in a manner that gives the appearance of influencing the selection process. This prohibition applies before the SFC is issued, as the project is developed, and extends through the award of an agreement. Failure to comply with this requirement may result in a disqualification in the selection process. Consultants should be aware that selection committee members will be required to certify that they have not been contacted by any of the Consultants in an attempt to influence the selection process.

**4. Requests for Information**

All requests for information regarding this project shall be in writing and directed to:

Lyle Knudsen  
Division of Facilities Construction and Management  
4110 State Office Building  
Salt Lake City, Utah 84114  
E-mail: lknudsen@utah.gov  
Facsimile: (801)538-3267

**5. Project Schedule.**

The Project Schedule lists the important events, dates, times, and locations of meetings and submittals that must be met by the Consultant.

**6. Pre-Submittal Meeting**

A pre-submittal meeting will be held on the date and time and at the location listed on the Project Schedule.

A representative from each interested prime firm is requested to attend. During the meeting, a presentation will be made to describe the overall scope of work and intended schedule. Interested firms may ask questions and request clarification about the project and the procurement process.

Subconsultants are invited to attend this meeting.

**7. Submittal Due Dates and Times**

All required submittals must be delivered to, and be received by, the Division of Facilities Construction and Management previous to the date and time indicated in the Project Schedule. Submittals received after the specified time will not be accepted. Please allow adequate time for delivery. If using a courier service, the submitting firm is responsible for ensuring that delivery will be made directly to the required location. It is your responsibility to allow for the time needed to park on Capitol Hill as recent construction activity has made the parking more difficult. Identification is required to enter the building.

**8. Last Day to Submit Questions**

All questions must be received at the office of DFCM no later than the time and dated listed in the Project Schedule. Questions must be submitted in writing to Lyle Knudsen at DFCM.

**9. Addendum**

All references to questions and requests for clarification will be in writing and issued as addenda to the Solicitation for Consultant Services. Addenda will be provided to every entity that has registered for receiving documents. The addenda or notice of the Addendum will be posted on DFCM's web site.

Any addenda issued prior to the submittal deadline shall become part of the Solicitation for Consultant Services and any information required shall be included in your submittal.

**10. Past Performance and References**

As a Consultant completes the commissioning on each DFCM project, DFCM, the contractors and the using agency or institution will evaluate the Consultant. It is the intent of DFCM that this process will be the major source for evaluating past performance.

Consultants shall submit past performance and reference information by the time indicated on the Project Schedule.

For all DFCM projects completed in the last 5 years identify the project by name, number and DFCM project manager. Each Consultant wishing to compete for this project that has not completed at least three DFCM projects in the last 5 years, will be required to provide one copy of a list of references on additional similar projects for a total of 3 projects.

For non-DFCM projects provide the following information:

Point of Contact:	Person who will be able to answer any customer satisfaction questions.
Phone Number:	Phone number of the contact we will be surveying.
User Name:	Name of Company / Institution that purchased the construction work.
Project Name:	Name of the project.
Date Completed:	Date of when the work was completed.
Address:	Street, city and state where the work was performed.
Size:	Size of project in dollars.
Duration:	Duration of the project / construction in months.
Type:	Type of the project (i.e.: School, Offices, Warehouse, etc)

## **11. Management Plan**

Firms will be required to develop and submit a plan demonstrating how they will manage their responsibilities, identifying risks, and how risks will be mitigated. An organization chart showing the roles and responsibilities of all pertinent decision-makers is a required part of the presentation.

Address project specific criteria, risks that have been identified by the SFC and additional risks that the team has identified. State how those risks will be mitigated.

Provide a break down of the current and anticipated backlog for 2002 through 2008. Information should identify project name, location, total contract amount, percent complete and remaining work. Please identify how this backlog and current commitments of personnel will affect the key personnel identified for this project. Please indicate the affect on the lead Commissioning Agent and team members during the scope development, document development, construction document development and construction administration. Provide an impact chart that identifies projects and the impact to key individuals that will be assigned to this project.

The Management Plan should be concise yet contain sufficient information for evaluation by the selection committee.

The submitting firm shall provide seven (7) copies of the Management Plan by the time indicated on the Project Schedule.

## **12. Statements of Qualifications**

The submitting firm shall provide seven (7) copies of the Statements of Qualifications by the time indicated on the Project Schedule.

The Statement of Qualifications is a short document that indicates the experience and qualifications of the firm, the project manager and other critical members of the team. It describes what talents their team brings to the project, how their knowledge of the subject will provide benefit to the process, how the team has been successful in the past and how that relates to this project. It should include information on similar projects that have been completed by the firm, project manager and other team members. Include the experience and special qualifications that are applicable to this project and/or are part of the project specific selection criteria.

## **13. Selection Committee**

The Selection Committee will be composed of individuals from the Utah State Building Board, DFCM, the User Agency / Institution, representatives from the design and construction disciplines, and others deemed appropriate by DFCM.

#### **14. Termination or Debarment Certifications**

The firm must submit a certification that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from soliciting work by any governmental department or agency. The firm must also certify that neither the firm nor its principals have been terminated during the performance of a contract or withdrew from a contract to avoid termination. If the firm cannot certify these two statements the firm shall submit a written explanation of the circumstances for review by DFCM. Firms are encouraged to submit these certifications with their Statement of Qualifications but they may be submitted up until the time the selection is completed.

#### **15. Interviews**

Interviews will be conducted with all firms who have met all of the requirements except as follows. If more than six firms are eligible for interviews, DFCM may convene the selection committee to develop a short list of firms to be invited to interviews. This evaluation will be made using the selection criteria noted below based on the information provided by the past performance/references, performance plan and statement of qualifications.

The purpose of the interview is to allow the firm to present its qualifications, past performance, management plan, schedule and general plan for accomplishing the project. It will also provide an opportunity for the selection committee to seek clarifications from the firm.

The proposed primary project management personnel, including the project manager, should be in attendance. The project manager is the firm's representative who has overall job authority, will be in attendance at all job meetings, and is authorized by the firm to negotiate and sign any and all change orders in the field, if necessary. Unless otherwise noted, the attendance of subconsultants is at the discretion of the firm.

The method of presentation is at the discretion of the firm. The interviews will be held on the date and at the place specified in the Project Schedule.

#### **16. Selection Criteria for VBS Professional Services**

The following criteria will be used in ranking each of the teams. The team that is ranked the highest will represent the best value for the state. The criteria are not listed in any priority order. The selection committee will consider all criteria in performing a comprehensive evaluation of the proposal. Weights have been assigned to each criteria in the form of points.



- A. DFCM Past Performance Rating. 15 Points. Each prime firm will be given a past performance rating. The rating will be based first on how well the firm did on past projects with DFCM. If a minimum of three DFCM past performance ratings are not available a rating will be established using any DFCM past performance ratings that are available, supplemented by references supplied by the firm at the time the Management Plans and SOQ are submitted.
- B. Strength of Team. 25 Points. Based on the statements of qualifications, the interview, and management plan, the selection team shall evaluate the expertise and experience of the team and the project lead as it relates to this project in size, complexity, quality, duration, etc. Consideration will also be given to the strength brought to the team by critical consultants including how they were selected and the success the team has had in the past in similar projects. Experience with LEED certified projects will be a factor.
- C. Project Management Approach. 30 Points. Based on the information provided in the statements of qualifications, the management plan and information presented in the interview the selection team shall evaluate how each team has planned to approach the project. The selection team will also evaluate the degree to which risks to the success of the project have been identified and a reasonable solution has been presented.
- D. The degree to which the Consultant demonstrates it has the capacity and commitment to devote the necessary time to the project and to assist in maintaining the project's schedule and quality. **15 Points.**
- E. The degree to which the consultant demonstrates that it can optimize the functioning of the Systems to be commissioned. **15 Points.**

**TOTAL POSSIBLE POINTS: 100 POINTS**

**17. Fee Negotiation**

Following selection of the Consultant by the Selection Committee and prior to the award of the agreement, DFCM will negotiate the final agreement fee with the selected firm. Should DFCM be unable to agree to a satisfactory contract with the top ranked firm at a price that DFCM determines to be fair and reasonable to the State, discussions with that firm shall be formally terminated. Negotiations will then be undertaken with the second ranked firm.

This process will be repeated until an agreement is reached or DFCM determines that it is in the best interest of the State to initiate a new selection process.

**18. Form of Agreement**

At the conclusion of negotiations, the selected Consultant will be required to enter into an agreement using the attached form of the Professional Services Agreement.

**19. Licensure**

The Consultant shall comply with and require its subconsultants to comply with the license laws of the State of Utah.

**PROJECT SCHEDULE**

<b>PROJECT NAME: UTAH MUSEUM OF NATURAL HISTORY – COMMISSIONING UNIVERSITY OF UTAH - SALT LAKE CITY, UTAH</b>				
<b>DFCM PROJECT #: 02243750</b>				
<b>Event</b>	<b>Day</b>	<b>Date</b>	<b>Time</b>	<b>Place</b>
Advertisement Placed	Sunday	April 23, 2006		Multi-media
Solicitation for Consultant Available	Monday	April 24, 2006	10:00 AM	DFCM, 4110 State Office Bldg., SLC, UT and DFCM web site *
Mandatory Pre- submittal Meeting	Monday	May 8, 2006	1:00 PM	DFCM, 4110 State Office Bldg., SLC, UT and DFCM
Last Day to Submit Questions	Friday	May 12, 2006	4:00 PM	DFCM, 4110 State Office Bldg., SLC, UT and DFCM
Addendum Issued	Wednesday	May 17, 2006	4:00 PM	DFCM web site *
Management Plans, References, and Statements of Qualifications Due	Tuesday	June 6, 2006	12:00 NOON	DFCM, 4110 State Office Bldg., SLC, UT
Termination / Debarment Certifications Due		On or Before Date of Interview		
Interviews	Monday	June 12, 2006	1:00 PM	DFCM, 4110 State Office Bldg., SLC, UT and DFCM
Announcement	Wednesday	June 14, 2006	4:00 PM	DFCM Website

\* NOTE: DFCM's web site address is <http://dfcm.utah.gov>

## **DIVISION OF FACILITIES CONSTRUCTION & MANAGEMENT PROFESSIONAL SERVICES AGREEMENT**

THIS AGREEMENT, made this \_\_\_\_th day of \_\_\_\_\_, 20\_\_\_\_, by and between the DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT, hereinafter called the "DFCM", and \_\_\_\_\_, a corporation of the State of Utah, whose address is \_\_\_\_\_, Utah \_\_\_\_\_ hereinafter called the "Consultant."

WITNESSETH: That whereas, the DFCM intends to have services performed by Consultant as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

WITNESSETH, WHEREAS the DFCM intends to have Consultant fully complete the objectives of this Agreement, and

WHEREAS, the Consultant, for the sum herein stated, agrees to perform the Scope of Work of this Agreement,

THEREFORE, the DFCM and the Consultant, for the consideration hereinafter provided, agree as follows:

**ARTICLE 1. EXTENT OF AGREEMENT AND SCOPE OF WORK.** This Agreement includes the provisions of the Solicitation for Consultant Services dated \_\_\_\_\_ and all documents attached thereto and all of which are hereby incorporated by reference as a part of this Agreement as if fully set forth herein. Except as noted in an Attachment hereto, the Consultant's services shall include all work described in the Consultant's proposal dated \_\_\_\_\_ which is attached hereto as Exhibit "A" and incorporated as part of this Agreement. In case of conflict, the following documents supercede each other in accordance with the following hierarchy: codes and applicable law, the body of this Agreement, attachments to this Agreement, and the following documents on file with DFCM and incorporated by reference as a part of this Agreement if fully set forth herein: the Solicitation

for Consultant Services, and the DFCM Design Manual dated May 25, 2005, which Design Manual is applicable to Architect/Engineer (A/E) programming and similar A/E consultation/studies that may be used later by an A/E in design work. Any reference in the DFCM Design Manual to A/E shall be deemed to refer to the Consultant under this Agreement.

**ARTICLE 2. TIME FOR SERVICES.** The Consultant shall complete the scope of work in a manner to achieve any milestones identified in the Solicitation for Consultant Services or the attachments to this Agreement. The full scope of work shall be completed by \_\_\_\_\_.

### **ARTICLE 3. PAYMENT.**

3.1 In accordance with the provisions and considerations set forth in this Agreement, the DFCM agrees to pay the Consultant a not-to-exceed (OR LUMP) sum of \_\_\_\_\_ DOLLARS AND NO/100 CENTS for the full and complete services included under the terms of this Agreement at the rates specified. This sum may be changed only by written authorization from the DFCM in the form of a modification to this Agreement properly executed by the DFCM.

3.2 The DFCM agrees to pay the Consultant from time to time as the work progresses, but not more than once each month after the date of the notice to proceed, and only upon receipt of an invoice containing sufficient detail to justify the amount of payment requested. Payment shall be made within thirty (30) days of the DFCM's receipt of the Consultant's invoice except that this requirement shall not apply to any amount: (a) for which the Consultant's invoice does not provide sufficient detail to demonstrate is due, (b) that the DFCM disputes is due under the terms of the Agreement, or (c) reasonably withheld by the DFCM to cover any default or failure to perform by the Consultant. The DFCM shall provide written notice to the Consultant of any adjustment to or rejection of Consultant's invoice.

3.3 Except as otherwise provided by law, if any payment is late based upon the provisions of this Agreement, the Consultant shall be paid interest in an amount equal to the published Wall Street Journal prime rate plus 2%. The published Wall Street Journal Prime Rate shall be determined using such rate that is published closest to the 1<sup>st</sup> of the month for each month of the late period. The amount of payment of interest shall be apportioned using such rate(s) for the late period.

3.4 The acceptance by the Consultant of final payment without a written protest filed with DFCM within three (3) calendar days of receipt of final payment, shall release the DFCM from all claims and all liability to the Consultant for fees and costs of the performance of the services pursuant to this Agreement.

**ARTICLE 4. CHANGES IN WORK.** Any changes in the scope of the services to be performed under this Agreement shall be in the form of a written modification to this Agreement, mutually agreed to and signed by duly authorized representatives of both parties, specifying any such changes, fee adjustments resulting therefrom, any adjustment in time of performance, or any other significant factors arising from the changes in the scope of services.

**ARTICLE 5. CAD REQUIREMENTS.** The Consultant shall follow the requirements, as applicable, of the DFCM CAD requirements provided in the DFCM Design Manual for any submissions.

## **ARTICLE 6. DOCUMENT OWNERSHIP.**

All work product, which includes but is not limited to all manuals, forms, contracts, schedules, reports, comments and any and all documents supplied to or produced by Consultant under this Agreement are the property of the DFCM, whether the work for which they are made is executed or not. Said documents and the information contained therein are the exclusive property of the DFCM and are not to be used by Consultant on any other projects with any other parties except by the advance written agreement of the DFCM.

## **ARTICLE 7. LEGAL RELATIONSHIP.**

**7.1 Independent Contractor.** This Agreement is for the performance of services and not the sale of goods, and is to be construed according to the laws of the State of Utah. Consultant's relationship to the State is that of an independent contractor. No partner or employee of Consultant shall, by reason of this Agreement, become an employee of the State of Utah.

**7.2 No Authority to Bind State; Exceptions.** The Consultant shall have no authorization, expressed or implied, to bind the State of Utah, or the Division of Facilities Construction and Management to any agreement, settlement, liability or understanding whatsoever, nor to perform any acts as agent for the State of Utah or DFCM, except as specifically set forth in this Agreement.

**ARTICLE 8. ASSIGNMENT.** This Agreement shall be binding upon and inure to the benefit of the parties and their successors and assigns; provided, however, that neither party shall assign its obligations hereunder without the prior written consent of the other.

## **ARTICLE 9. TERMINATION BY**

**CONSULTANT.** This Agreement may be terminated by Consultant upon seven (7) calendar days written notice should the DFCM fail substantially to perform, through no fault of the Consultant and the DFCM has failed to cure the failure to perform within fourteen (14) calendar days of the DFCM's receipt of written notice of its failure to perform. Upon termination of this Agreement, the Consultant shall deliver all work performed to the DFCM. In the event of such termination, the Consultant shall be compensated for services properly performed under this

Agreement up to date of the notice of termination. The Consultant agrees that in the event of such termination for default and such default is not successfully challenged by DFCM, its total remedy and monetary recovery from the DFCM is limited to full payment for all work properly performed, reimbursables, under this Agreement up to the date of termination as well as any reasonable monies owed as a result of the Consultant having to terminate contracts necessarily entered into by the Consultant pursuant to this Agreement. Consultant further acknowledges that in the event of such termination, all work product, which includes but is not limited to all manuals, forms, contracts, schedules, reports, comments and any and all documents produced by Consultant under this Agreement up to the date of termination are the property of the DFCM.

#### **ARTICLE 10. TERMINATION BY DFCM.**

The performance of service under this Agreement may be terminated by the DFCM in whole or in part at any time, whenever the DFCM shall determine that such termination is in the best interest of the DFCM. This includes any termination by DFCM for convenience or for cause. Any such termination shall be effected by delivery to Consultant of a written notice of termination specifying the extent to which performance of work under this Agreement is terminated and the date upon which such termination becomes effective. The Consultant agrees that in the event of such termination, its total remedy and monetary recovery from the DFCM is limited to full payment for all work performed, plus reimbursables, under this Agreement up to date of termination. Consultant further acknowledges that in the event of such termination, all work product, which includes but is not limited to all manuals, forms, contracts, schedules, reports, comments and any and all documents produced by Consultant under this Agreement up to the date of termination are the property of the DFCM.

#### **ARTICLE 11. HOLD HARMLESS**

**REQUIREMENT.** To the fullest extent permitted by law, the Consultant hereby agrees to indemnify and save harmless the State of Utah, the Division of Facilities Construction and Management, their officers, agents and employees and anyone for whom DFCM may be held liable from and against any and all claims, damages or liabilities arising from wrongful or negligent acts, errors or omissions of the Consultant, any of Consultant's

subconsultants or subcontractors at any tier and anyone for whom Consultant may be liable.

#### **ARTICLE 12. PRELIMINARY RESOLUTION EFFORTS, CLAIMS AND DISPUTES; GENERAL CONDITIONS REQUIREMENTS APPLY.**

**12.1 GENERAL CONDITIONS REQUIREMENTS APPLY.** The provisions of Articles 7.7 through and including 7.14 of the DFCM General Conditions dated May 25, 2005, on file with the DFCM as well as available on the DFCM website at <http://dfcm.utah.gov> and hereby incorporated by reference shall apply to Preliminary Resolution Efforts, Claims and Disputes under this Agreement. References in said Articles 7.7 through and including 7.14 to the term "Contractor" and "Subcontractor" shall refer to the Consultant and Subconsultants or Subcontracts at any tier under this Agreement, respectively. Unless inconsistent with the provisions of this Agreement, definitions in the DFCM General Conditions shall apply to this Agreement.

#### **12.2 TIME FOR FILING.**

Notwithstanding paragraph 12.1 above, the PRE must be filed in writing with the DFCM Representative within twenty-one (21) days of any of the following:

1. Issuance of a denial by DFCM of a Consultant request for additional monies or other relief under this Agreement;
2. In the case of a Subconsultant, after the expiration of the time period for the Consultant/ Subconsultant PRE process under Paragraph 7.7.5 of DFCM General Conditions; or
3. When the Consultant knows or should have known about any other issue where the Consultant seeks additional monies, time or other relief from the State of Utah or DFCM.

**12.3 NOT LIMIT DFCM RIGHTS.** As stated in Rule R23-26-1(6), this does not limit the right of DFCM to have any of its issues, disputes or claims considered. DFCM reserves all rights to pursue its issues, disputes or claims in law or equity including, but not limited to, any or all of the following: damages, delay damages and impacts, losses, liability, patent or latent defects, or failure to perform under this Agreement. If the Director

appoints an expert or a panel to consider any such issue(s), dispute(s) or claims(s) of DFCM, the Consultant shall cooperate with such expert or panel process.

**ARTICLE 13. INSURANCE.** To protect against liability, loss and/or expense in connection with the performance of services described under this Agreement, the Consultant shall obtain and maintain in force during the entire period of this Agreement without interruption, at its own expense, insurance as listed below from insurance companies authorized to do business in the State of Utah. The following are minimum coverages that may be supplemented by additional requirements contained in Solicitation for Consultant Services or any other document used to procure Consultant's services.

#### **13.1 Worker's Compensation**

**Insurance and Employers' Liability Insurance.** Worker's Compensation Insurance shall cover full liability under the Worker's Compensation laws of the jurisdiction in which the work is performed at the statutory limits required by said jurisdiction. Employer's Liability Insurance shall provide the following limits of liability: \$100,000 for each accident; \$500,000 for Disease-Policy Limit; and \$100,000 for Disease-Each Employee.

**13.2 Commercial General Liability Insurance.** Commercial General Liability Insurance shall be on an "occurrence basis" and shall include insurance for premises and operations, independent contractors, projects/completed operations, and contractual liability coverage with limits not less than listed below. The State of Utah shall be named as an insured party, as primary coverage and not contributing, and the policy shall be endorsed to include a waiver of subrogation in favor of the State of Utah.

\$1,000,000	General Aggregate
\$1,000,000	Products-Completed Operations Aggregate
\$500,000	Personal and Advertising Injury
\$500,000	Each Occurrence

**13.3 Other Insurance Coverages.** Consultant shall maintain the following insurance at levels Consultant determines: Professional Liability Insurance (an Attachment to this Agreement may be more specific in regard to Professional Liability Insurance), Comprehensive Automobile Liability Insurance, Valuable Papers and Records Coverage and Electronic Data Processing (Data and Media)

Coverage, and Aircraft Use. Any minimum requirements for these insurance coverages will be identified in the Solicitation for Consultant Services or any other document used to procure Consultant's services. Any type of insurance or any increase of limits of liability not described in this Agreement which the Consultant requires for its own protection or on account of any statute, rule, or regulation shall be its own responsibility and at its own expense.

13.4 The carrying of insurance required by this Agreement shall not be interpreted as relieving the Consultant of any other responsibility or liability under this Agreement or any applicable law, statute, rule, regulation or order.

**ARTICLE 14. STANDARD OF CARE.** The services of Consultant and its Subconsultants, if any, shall be performed in accordance with and judged solely by the standard of care exercised by licensed members of their respective professions having substantial experience providing similar services on projects similar in type, magnitude and complexity to the Project that is the subject of this Agreement. The Consultant shall be liable to the DFCM or the State of Utah for claims, liabilities, additional burdens, penalties, damages or third party claims (i.e. a Contractor claim against DFCM or the State of Utah), to the extent caused by errors or omissions that do not meet this standard of care.

**ARTICLE 15. Use of "Sales Agents."** The Consultant warrants that no sales agent has been employed or retained except as indicated in writing to DFCM.

**ARTICLE 16. LAWS, CODES AND REGULATIONS.** Consultant and its Subconsultants shall use their best efforts consistent with the Standard of Care stated herein to comply with all applicable laws, codes, rules, regulations, ordinances and quality requirements applicable to the Project.

**ARTICLE 17. DFCM REVIEWS, LIMITATIONS.** The right of the DFCM or any entity/user to perform plan checks, plan reviews, other reviews and/or comment upon the work of the Consultant, as well as any approval by the DFCM, shall not be construed as relieving the Consultant from its professional and legal responsibility for services required under this Agreement. No review by the DFCM or any entity/user, approval or acceptance, or payment for any of the services

required under this Agreement shall be construed to operate as a waiver by the DFCM of any right under this Agreement or of any cause of action arising out of the performance or nonperformance of this Agreement, and the Consultant shall be and remain liable to the DFCM in accordance with applicable law for all damages to the DFCM caused by the Consultant's acts, errors and/or omissions.

**ARTICLE 18. DISCRIMINATION AND SEXUAL HARASSMENT PROHIBITED.**

Pursuant to the laws of the State of Utah, the Consultant, or any person acting on behalf thereof, will not discriminate against any employee or applicant for employment because of race, creed, color, sex, religion, ancestry or national origin. To the extent applicable, said persons will comply with all provisions of Executive Order No. 11246 dated September 24, 1965 and rules, regulations, orders, instructions, designations and other directives promulgated pursuant thereto. The Consultant, or anyone for whose act the Consultant may be liable, shall not act in any manner as would violate the laws, regulations and policies of the United States or the State of Utah prohibiting sexual harassment.

**ARTICLE 19. PERFORMANCE**

**EVALUATION.** DFCM may conduct a performance evaluation of the Consultant's services, including specific personnel of Consultant or any Subconsultant at any time. Results of any evaluation will be made available to the Consultant.

**ARTICLE 20. STATUTE OF LIMITATION AND STATUTE OF REPOSE.**

An action by or against the Consultant, the Consultant's Subconsultant, agent, independent Subconsultant, or anyone for whom the Consultant may be liable, shall comply with and be bound by the applicable and lawful statute of limitation and statute of repose provisions. Notwithstanding this, any action by or against the Consultant, the Consultant's Subconsultant, agent, independent Subconsultant, or anyone for whom the Consultant may be liable, that is based in contract or warranty shall be commenced within six (6) years of the date of substantial completion of the improvement or abandonment of construction except that such period of limitation shall be modified as follows:

**20.1 Fraudulent Concealment.** In the event that the Consultant, the Consultant's Subconsultant, agent, independent Subconsultant, or anyone for whom the Consultant may be liable has

fraudulently concealed the act, error, omission or breach of duty, or the injury, damage or other loss caused by the act, error, omission or breach of duty, the six year period shall not begin to run until such time as the DFCM discovers or, through the exercise of reasonable diligence, should have discovered its claim.

**20.2 Willful and Intentional.** In the event that the Consultant, the Consultant's Subconsultant, agent, independent Subconsultant, or anyone for whom the Consultant may be liable commits a willful or intentional act, error, omission, or breach of duty, the six year period shall not begin to run until such time as the DFCM discovers or, through the exercise of reasonable diligence, should have discovered its claim.

**20.3 Unintentional and Nonfraudulent Latent Acts, Errors, Omissions or Breaches of Duty.**

In the event of an unintentional and nonfraudulent latent act, error, omission or breach of duty, the DFCM shall have the time period allowed by Utah law and the Utah Code, unless a longer period is provided for in an attachment to this Agreement.

**20.4 "Different Period of Limitation" from Utah Code.**

These provisions are understood and agreed to by the Consultant as establishing a "different period of limitations" as that term is used in UCA 78-12-21.5(3)(a) or any other similar statute of the Utah Code. These provisions are not intended to shorten any time period allowed by Utah law and code for non-contract actions, including but not limited to, those based in tort.

**ARTICLE 21. WAIVERS.** No waiver by the DFCM or Consultant of any default shall constitute a waiver of the same default at a later time or of a different default.

**ARTICLE 22. APPLICABLE LAW AND VENUE.**

This Agreement shall be construed in accordance with the laws of the State of Utah. Venue for any legal proceeding regarding this Agreement shall be in the Salt Lake County, State of Utah.

**ARTICLE 23. AUTHORITY TO EXECUTE.**

The Consultant and DFCM each represent that the execution of this Agreement and the performance thereunder is within their respective duly authorized powers.



**IN WITNESS WHEREOF**, the parties hereto have entered into this Agreement on the day and year first above written.

**CONSULTANT:** \_\_\_\_\_

\_\_\_\_\_  
Signature Date

Title: \_\_\_\_\_

\_\_\_\_\_  
Please type/print name clearly

State of \_\_\_\_\_ )  
County of \_\_\_\_\_ )

On this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, personally appeared before me, \_\_\_\_\_, whose identity is personally known to me (or proved to me on the basis of satisfactory evidence) and who by me duly sworn (or affirmed), did say that he (she) is the \_\_\_\_\_ (title or office) of the firm and that said document was signed by him (her) in behalf of said firm.

(SEAL)

\_\_\_\_\_  
**Notary Public**

My Commission Expires \_\_\_\_\_

APPROVED AS TO FORM:  
ATTORNEY GENERAL **AND MANAGEMENT**  
June 13, 2005  
By: ALAN S. BACHMAN  
Asst Attorney General

**DIV. OF FACILITIES CONSTRUCTION**

\_\_\_\_\_  
\_\_\_\_\_  
Manager - Capital \_\_\_\_\_ Date

Approved for expenditure:

Approved as to availability of funds:

\_\_\_\_\_  
Division of Finance Date

\_\_\_\_\_  
Financial Manager, Date  
Div. of Facilities Construction & Management